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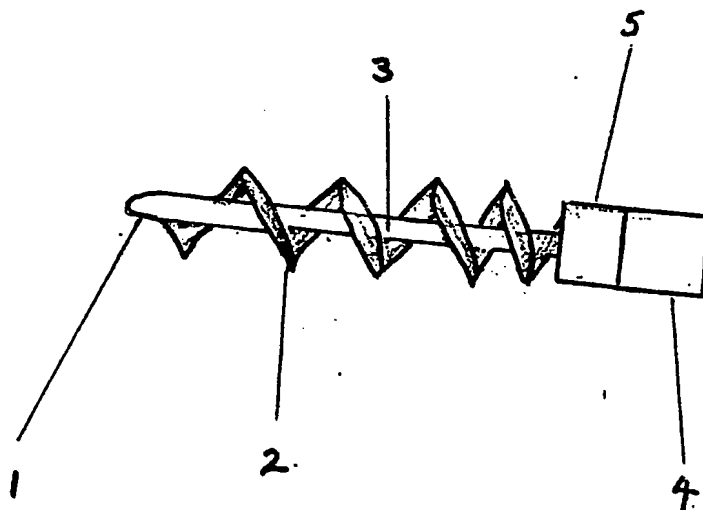
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(56) Documents cited  
Dana C Mears, "Materials and Orthopaedic Surgery",  
1979, Williams and Wilkins, Figure 9-8 page 285

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(54) Uterine screw-plug

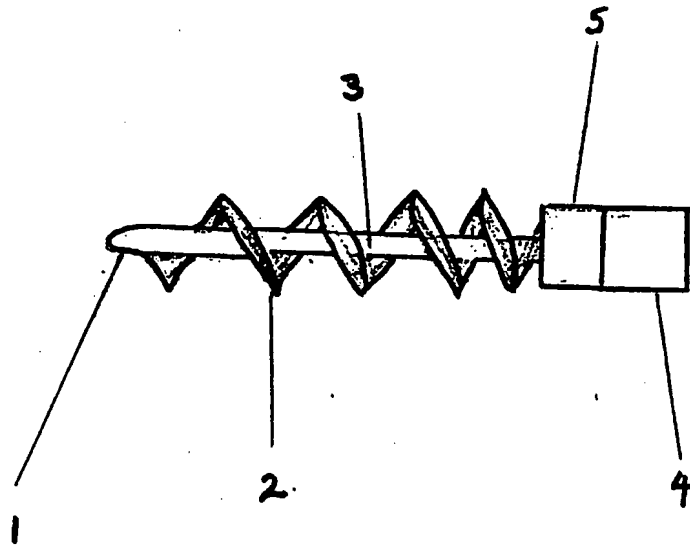
(57) A uterine screw-plug for temporary or permanent contraception can be screwed into the cornual portion of the fallopian tube using a hysteroscopic technique. The plug is 11mm long and 2mm in diameter. It has a shaped, eg square or hexagonal, end 4 by which it can be gripped for insertion or removal.



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DIAGRAM

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#### UTERINE SCREW-PLUG

for female sterilization both temporary and permanent

The screw-plug is a device that is inserted into the cornual opening of the human fallopian tube. When inserted it will prevent fertilization of the human ova by preventing spermatazoa gaining access to the ova. The device may remain as long as it is required. It may be removed in order to allow fertilization and conception to take place.

The device is a small screw (see diagram) which is introduced into the uterine cavity under direct vision using an operating hysteroscope. The uterine screw-plug is held by its head with biopsy forceps. The insertion end is introduced into the opening of the fallopian tube and the device is screwed into the proximal portion of the tube (cornua). Once in place it will remain until removed by a similar procedure in reverse.

An illustrative example of the invention is shown in the accompanying drawing. Referring to the illustrative example of a screw-plug,

5 The screw-plug shown in the diagram is 11mm in length, 2mm in diameter. The introducing end (1) is rounded to assist accurate placing in the lumen of the tube. The screw (2) is of the 'self-tapping' design with a central core (3) of 1mm and a length of 8mm. The holding portion is square (4) on a rounded shank (5) to enable a firm hold to be made. The rounded shank tends to act as a plug portion.

15 It is preferably manufactured in a radio-opaque material. The material should cause little or no tissue reaction. It may be made of metal or plastic or nylon.

20 The holding portion may be other than square, for example hexagonal or rounded, eg. like a 50p piece, to enable it to be gripped by biopsy forceps easily from various angles. The holding portion 4 may also be larger in diameter than the screw 2, again to enable easier gripping by forceps especially on removal.

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The uterine screw-plug is a device for preventing conception by blocking the fallopian tubes. It is simply inserted and may be removed when necessary. It is a temporary or permanent contraceptive.

CLAIMS

1. A screw-plug adapted to block a fallopian tube.
- 5 2. A plug according to claim 1, wherein the plug has a screw thread for engaging and retaining the screw in the fallopian tube.
- 10 3. A plug according to claim 1 or 2, wherein the screw-plug has a head adapted to be held by biopsy forceps.
4. A plug according to claim 3, wherein the head is square or hexagonal.
- 15 5. A plug according to any preceding claim, <sup>wherein</sup> the introduction end is blunt.
- 20 6. A plug according to claim 5, wherein the introduction end is rounded.
7. A plug substantially as hereinbefore described with reference to the accompanying drawings.

AMENDMENTS TO THE CLAIMS

8. A plug as claimed in any of claims 1 to 7, wherein the plug is inserted into a fallopian tube to block the tube.

5      9. A method of contraception in which the fallopian tube is blocked by a screw-plug.

10      10. A method as claimed in claim 8, wherein the screw-plug which is used is as claimed in any of claims 2 to 6.